



Montana Office of Public Instruction
Linda McCulloch, Superintendent
In-state toll free 1-888-231-9393
www.opi.mt.gov/IndianEd

Mathematics Lesson Plan

Title: Probability and Data Analysis

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Grade 1: Duration 2 - 45 minute sessions

Stage 1 Desired Results

Established Goals:

Montana Content Standards: 6 Students demonstrate understanding of and an ability to use data analysis, probability and statistics. Benchmark 1: Collect, organize and display data

Essential Understanding 1: There is diversity between the 12 tribal nations in their languages, cultures, histories, and governments. Each nation has a distinct and unique cultural heritage that contributes to modern Montana.

Understandings:

1. Blackfeet children played tossing a hoop as a competition for skill and as a social game.
2. How to predict, collect data, and gather information.
3. How to make a graph from the information that is collected.

Essential Questions:

1. How many times out of 10 do you predict that you will be able to catch the hoop with a stick?
2. What skills are you developing through this competition of data collecting?
3. Do you know of other Native American games?

Students will be able to...

1. Recognize the uniqueness of games that Blackfeet children played by age and social skills.

Students will know...

1. How to play the Blackfeet game "Ring the Stick."
2. How to collect and display data using a line plot.

Stage 2 Assessment Evidence

Performance Tasks:

- *Students will play the traditional Native American game of Ring the Stick.
- *Students will collect and tally the results of the games.
- *Students will organize collected data and display data using a line plot.

Other Evidence:

- *Teachers will assess students' social skills as they play the game.



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Stage 3 Learning Plan

Learning Activities:

1. Introduce the game of Ring the Stick and discuss that it is a game played by Blackfeet children. It is a game that is used in competition. (see attachment A)
2. Have the materials available for students to play the game in groups of 3 to 4.
3. On a piece of paper, have students make a prediction as to how many times they will be able to catch the hoop on the stick.
4. Have students toss the hoop 10 times and record the number of catches by tallying on their paper.
5. Once all students have finished, make a class line plot by having the numbers 1 through 10 on the x-axis. Each student will put an X on the number of times they caught the hoop.
6. Display the line plot and review how many were right on their original prediction and record that information.

Materials/Resources Needed:

- A piece of rawhide or hard piece of plastic, string, hoop, graph paper and pencils
- Blackfeet Children Games, published by Montana Art Council, Blackfeet Community College. By calling the Community College at (406) 339-5411, you can request a copy of the game rules.

Blackfeet Children's Games



Instruction Manual to Accompany *Blackfeet Children's Games: video cassette*

Developed and researched under a grant from Montana Arts Council
through Blackfeet Community College

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Marketing and Distribution:
American Indian Games Foundation
1020 10th Avenue North
Great Falls, MT 59401

Ring the Stick: A hoop of any size was tied to a length of rawhide or sinew and attached to a stick. The hoop was swung upward and as it came down, the player tried to put the end of the stick through the hoop. The ring had to start from a position flat on the ground before being thrown up into the air. In competition with each other, the players took turns and the player getting the most rings out of an agreed number of turns was the winner. Generally the hoop size was made according to the age of the players with a large hoop made for the youngest and a smaller hoop with netting and a longer stick made for the older children. This was mainly a social game just played for fun.

